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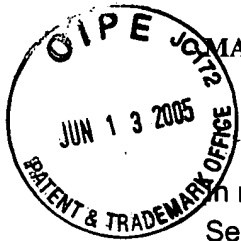
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MAT-8575US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Shinichiro Takabayashi, et al.

Serial No.: 10/502,512

Group No.: 2631

Filed: July 23, 2004

Examiner: To Be Assigned

For: DISTORTION COMPENSATOR

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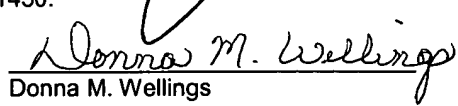
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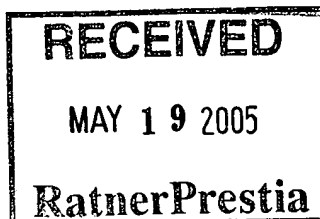


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Applicant(s)

Shinichiro Takabayashi, Kanagawa, JAPAN;
 Masato Ukena, Kanagawa, JAPAN;
 Masayuki Orihashi, Chiba, JAPAN;

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(JP). **ORIHASHI, Masayuki** [JP/JP]; 1-12-1-302, Futamata, Ichikawa-shi, Chiba 272-0001 (JP).

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(74) Agents: **IWAHASHI, Fumio** et al.; c/o Matsushita Electric Industrial Co., Ltd., 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 (JP).

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(71) Applicant (*for all designated States except US*): **MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD.** [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 (JP).

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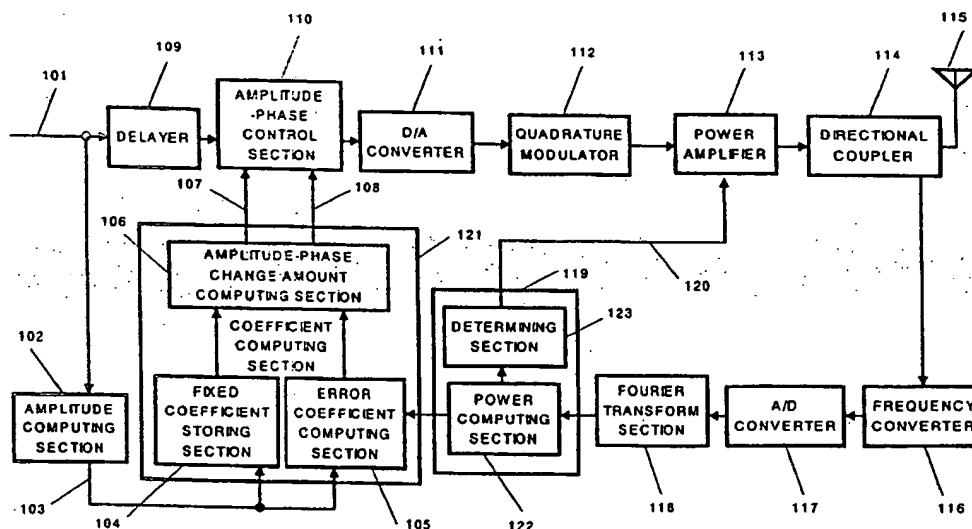
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **TAKABAYASHI, Shinichiro** [JP/JP]; 2-2-17-205, Nobi, Yokosuka-shi, Kanagawa 239-0841 (JP). **UKENA, Masato** [JP/JP]; 6-2-801, Hikarinooka, Yokosuka-shi, Kanagawa 239-0847

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(54) Title: **DISTORTION COMPENSATOR**



(57) Abstract: A coefficient computing section (121), for computing a characteristic reverse to an input/output characteristic of the power amplifier (113), is configured by a fixed coefficient storing section (104) and an error coefficient computing section (105). The fixed coefficient storing section (104) is previously stored with the characteristic reverse to a pre-measured input/output characteristic. The error coefficient computing section (105) computes an error coefficient between a characteristic stored in the fixed coefficient storing section (104) and a current characteristic of the power amplifier (113). When the determining section (123) determines that the adjacent-channel leak current power ratio is greater than a predetermined value, an operation halt is instructed to the power amplifier (113). With this structure, rapid convergence is possible in adapting operation for follow-up the characteristic variation of the power amplifier (113). Furthermore, interference to the adjacent channel due to distortion abnormality in the power amplifier (113) can be prevented.

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